

MORPHATIDES - NOVEL SHAPE AND STRUCTURE LIBRARIES

ABSTRACT OF THE DISCLOSURE

This invention provides a method for identifying one or more complexes from a library of complexes, wherein said complex or complexes are selected for their ability to perform a preselected or desired function on a target molecule or by having a preselected structure, each complex being designated a morphatide, said method comprising: (a) preparing a library of morphatides, comprised of: (i) a scaffolding component selected from the group consisting of nucleic acid, nucleic acid like molecule or nucleic acid analog having one or more regions of randomized sequence; (ii) one or more linker components; and (iii) one or more agent molecules or type of agent molecules, linked to the scaffolding component by one or more type of linker components; and (b) screening the library of morphatides prepared in step (a) by contacting, binding, or associating the morphatides with one or more suitable target molecules upon which a morphatide performs a preselected or desired function or to which a morphatide binds or associates through a pre-selected structure of said morphatide under conditions permitting said morphatide to perform said preselected or desired function on said target molecules or permitting said morphatide to bind or associate with said target molecules through the preselected structure; (c) separating the morphatides performing the preselected or desired function or binding or associating through the preselected structure, from the library of morphatides and target molecules; thereby identifying one or more complexes from a library of complexes, wherein said complex or complexes are selected for their ability to perform a preselected or desired function on a target molecule or by having a pre-selected structure.